
# Russia's radioactive waste management program

## Low-level radioactive waste

Some low-level liquid radioactive wastes are condensed by evaporation and recycled. Any leftover waste is solidified and buried with other solid low-level radioactive wastes in concrete burial units or trenches. Untreated low-level liquid wastes are injected underground into deep porous rocks surrounded by layers of clay.

## Spent nuclear fuel and high-level radioactive waste

Russia's approximately 30 nuclear power plants store their spent nuclear fuel waste on-site. Liquid high-level radioactive waste from reprocessed fuel is vitrified, or converted into solid form.

## Reprocessing spent nuclear fuel

Reprocessing takes place at Chelyabinsk-65, a plant which has been in operation for several years. A second facility is scheduled for start up at Krasnoyarsk for 2002-2005. Krasnoyarsk is already a central storage facility for spent nuclear fuel.

## Transporting radioactive waste

Liquid wastes destined for solidification and disposal are transported as liquids in trucks. Spent nuclear fuel assemblies are transported using a cask and rail car designed to move the fuel.

## Deep geologic disposal plans

Investigations of potential geologic repository sites by a number of Russian institutions, including the Russian Academy of Sciences, are ongoing. Russia is currently investigating several regions as potential study sites. Four possible rock types are being considered for disposal: salt, granite, clay, and basalt. Disposal plans include using a multi-barrier approach.

Russia has a wide variety of geologic environments that contribute to the selection of suitable sites. It is likely that one will be chosen based on its proximity to a radioactive waste-producing facility. A repository operation date is to be decided.

U.S. Department of Energy
Office of Civilian Radioactive Waste Management

YUCCA MOUNTAIN
SITE CHARACTERIZATION
PROJECT

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Operating reactor sites (no. of units)
Shutdown reactor sites (no. of units)
Reactors in neighboring countries
Waste management sites
(Note: location of East Coast site has not yet been determined)
Cities
Russia
Novaya Zemlya
Murmansk
Kola (4)
Finland
Leningrad (4)
St. Petersburg
Kalinin (2)
Yaroslavl
Moscow
Smolensk (3)
Penza
Kursk (4)
Novovoronezhskiy (3)
Balakovo (4)
VK-50 (1)
Beloyarskiy (1)
Tomsk
Mayak
Chelyabinsk
Troitsk (6)
Zheleznogorsk
Krasnoyarsk
Novosibirsk
Angarsk
Yakutsk
East Coast
Bilibino (4)
Kazakhstan
Mongolia
China
N. Korea
Japan